

**ALTERNATIVE E - LAGUNA PROPOSAL**

**OBJECTIVES**

1. Mitigate existing on and off-site safety and environmental impacts to an acceptable condition suitable for long term future land uses.
2. Ensure that all mitigative and reclamation measures used result in a permanent solution requiring a minimum of future maintenance activities.
3. Protect important tribal mineral resources on site so that future opportunities for exploitation are not significantly encumbered.
4. Enhance the visual resources of the mined areas.
5. Accomplish corrective measures utilizing to the maximum extent possible qualified members of the Laguna Tribe residing in the local area.

**FUTURE LAND USES:**

Livestock grazing, light manufacturing, office space, mining, and major equipment storage, wildlife habitat and hunting, mineral storage and processing.

Specifically excluded are human habitation and cultivated farming.

**RECLAMATION MEASURES:**

**OPEN PITS:**

Backfill the South Paguete Pit to its approximate original contour.

Backfill the north highwall of the North Paguete pit to a 3:1 maximum slope and backfill the Pit bottom to ten feet above the long term groundwater recovery level (as determined by the EIS Task Force).

Backfill the Jackpile pit bottom to ten feet above the long term groundwater recovery level (as determined by the EIS Task Force) and backfill pit slopes to a maximum 3:1.

Use overburden from waste dumps as backfill materials.



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Cover the Jackpile sandstone and other hazardous material backfill with four feet of suitable overburden and one foot of soil.

Stabilize all remaining highwalls greater than 150 feet in height to a minimum safety factor of 1.5.\*

#### PROTORE STOCKPILES:

Relocate all protore stockpiles to positions above the expected groundwater recovery levels (as determined by the EIS Task Force).

Cover protore stockpiles with four feet of impervious overburden materials and one foot of soil.

Install a separate fence around the protore stockpile areas.

#### WASTE DUMPS

Cover dumps that contain Jackpile sandstone on their outer surface with four feet of overburden and one foot of soil. Cover any Jackpile sandstone exposed during sloping of waste piles with four feet of overburden and one foot of soil.

Cover dumps that do not contain Jackpile sandstone on their outer surface with one foot of soil.

Leave previously revegetated dumps undisturbed (except to reseed and modify slopes, as necessary).

Reduce all slopes on the site to 3:1 or less, with the exception of the Jackpile Pit highwalls. Slopes will be contour furrowed to trap precipitation and prevent runoff.

#### SITE STABILITY AND DRAINAGE:

Remove all protore and waste material that lies within 200 feet of the Rio Paguate and Rio Moquino. Construct a permanent cement base for the Rio Moquino immediately above its confluence with the Rio Paguate.

Create an artificial watershed divide south of dumps Y, Y-2, and I to inhibit arroyo head cutting, and armor the arroyo north of dump FD-3.

Contour furrow all pit areas.

Contour dump slopes so that their toes are convex to prevent the formation of major gullies on the slopes. Slightly slope all dump tops away from their outer slopes. Contour furrow all dump tops and slopes.

Remove waste dump J and protore stockpiles 17-BC and 6-B, to unblock the ephemeral drainage on the south side of the mine. The two blocked drainages on the north and south sides of Gavilan Mesa will remain blocked. The remainder of the site, with the exception of the open pits, would drain to the Rio Paguete and Rio Moquino.

Modify waste dumps as previously discussed.

#### STRUCTURES:

Construct a cement bulkhead 680 feet below the collar of the P-10 decline and backfill to the surface. Bulkhead and fill the Alpine Mine entry. Backfill vent holes with waste to within ten feet of the surface and place a ten foot cement surface plug. All other mine entries would be covered by backfilling or have been previously plugged.

Clean up radiological spots along the rail spur until values of twice background or less are achieved. Remove the Quirk loading dock. Leave the rail spur intact.

Clear the four main roads on the site, and the parking areas for the geology building, Open Pit Offices, P-10 mine buildings, New Shop, and Old Shop of radiologically contaminated material until values of twice background or less are achieved. These roads and parking areas will remain. Clear all other roads and associated structures of radiologically contaminated material until values of twice background or less are achieved and recontour these areas to conform to the surrounding terrain.

Remove crusher, tipple, and all mining equipment.

Remove all pumps and cap all water wells.

Clear the Woodrow Mine area of radiologically contaminated material so that radiological values of twice background or less are achieved and cover with one foot of soil.

Clean up the P-10 mine buildings, New Shop, building at the employee housing (excluding homes - trailers), until radiological values of twice background or less are achieved. Leave these buildings and their sewage systems intact. Remove all other buildings, including the employee housing and powder magazine.

#### REVEGETATION:

Obtain soil from the four existing soil stockpiles, and from the soil borrow areas along the Rio Moquino, and from the east side of Gavilan Mesa. Place a minimum of one foot of quality soil on all disturbed areas.

Reseed all disturbed areas with the appropriate seed mixtures and rates previously agreed upon.

Prevent grazing for five years following revegetation.

#### MONITORING:

Fence all of the disturbed acreage.

Continue monitoring (by Anaconda) of surface water, groundwater, air quality, subsidence, revegetation success, and concentration of toxic elements in revegetation species for a period of ten years following the completion of reclamation activities.

Monitor at least semi-annually all remaining highwalls greater than 150 feet high and having a safety factor less than 1.5 during the reclamation period. Highwalls exhibiting stability problems are to be repaired as needed by scaling or other appropriate methods.

*\* This safety factor hasn't been discussed w/ Council.*

The BLM and BIA would monitor every aspect of the reclamation activities to assure compliance with all reclamation requirements. The Pueblo of Laguna and BIA would control future land use on the site, and would prevent any uses not provided for by this reclamation.

Access prior to and during reclamation would be controlled by Anaconda.

REVEGETATION SUCCESS:

Reclamation considered complete when the species density and basal cover of the revegetated areas equals or exceeds 90 percent of the density and basal cover of surrounding undisturbed areas but not sooner than ten years following seeding.